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RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 3600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: B. Herman Attorney Docket No.: WEYE121341/24873
Application No.: 10/727,446 Art Unit: 3643 / Confirmation No: 7090
Filed: 12/3/2003 Examiner: Jeffrey L. Gellner
Title: USE OF A LOW NITROGEN FERTILIZER TO PROPAGATE SHOOTS
FROM A LOG

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Seattle, Washington 98101

May 16, 2006

TO THE COMMISSIONER FOR PATENTS:

Applicant requests review of the final Rejection in the above-identified application. Claims 1-16 are pending in the application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal.

ARGUMENTS

The Rejection of Claims 1-6 and 10-16 Under 35 U.S.C. § 103(a) as Being Unpatentable over Radwan et al., (New Forests 3: 21-30 (1989) in View of Saul et al. (Forest Research Note No. 33 (1982))

Claims 1-6 and 10-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Radwan et al., (New Forests 3: 21-30 (1989) in view of Saul et al. (Forest Research Note No. 33 (1982)). It is respectfully submitted that the burden of establishing a *prima facie* case of obviousness has not been met because 1) there is no teaching or suggestion in the cited references to modify the teachings to arrive at the invention as claimed, 2) there is no expectation of success because the cited references teach away from the claimed invention, and 3) the cited references fail to teach or suggest all the claim limitations.

The present invention is directed to a method for promoting the growth of shoots from a log. The method comprises the step of applying a fertilizer solution that comprises less than about 0.01% (w/v) nitrogen, to a member of the group consisting of an Alder log, a Beech log and a Birch log, in an amount sufficient to promote the growth of shoots from the log. As described in the specification and pointed out during prosecution, "Alder, Beech or Birch logs that are useful in the practice of the present invention are typically between twelve inches and twenty four inches long, typically have a diameter between one inch and two inches." (Specification, page 3, lines 9-11, Response to Office Action mailed November 18, 2005). The term "shoot" is defined in the specification as tissue that grows from any portion of an Alder log, Beech log or Birch log (e.g. a bud or lenticel) that has meristematic activity. The shoots may have the appearance of small branches and may form leaves. The shoots can be induced to form roots by excising the shoots from the log, applying a rooting hormone to the cut surface of the shoot, and thereafter cultivating the shoot in a growth medium under environmental conditions that promote root formation. (Specification, page 2, lines 25-31).

The Examiner has cited Radwan et al. as disclosing "a method for promoting growth of shoots ('vigorous new shoots' on top page 23) comprising applying fertilizer solution ('intermittent overhead mist' of 2nd para. of page 24) that comprises less than about 0.01% (w/v) nitrogen (in that mist is water which would contain less than about 0.01% (w/v nitrogen) from an Alder." (Final Office Action mailed February 6, 2006). The Examiner has taken the position that the sprouts produced in Radwan et al. are equivalent to the logs of Claim 1. (Advisory Action mailed April 13, 2006). The Examiner states "with the cuttings, Radwan et al. mists with no fertilizer added." (Advisory Action mailed April 13, 2006). The Examiner acknowledges that the sprouts of Radwan et al. are not within the length requirement of Applicant's definition of a

log, then cites Saul as disclosing use of this length of material. (Advisory Action mailed April 13, 2006).

It is submitted that the Examiner has mischaracterized the teachings of Radwan et al. Radwan et al. describes a study designed to compare the *rootability* of softwood cuttings of Red Alder (Radwan et al., page 22, 2nd paragraph). The only teaching of Radwan et al. directed to the production of shoots requires 1) living trees, 2) the application of a 10-20-20 commercial fertilizer to the tree, and 3) girdling or pruning the tree, as described in more detail below.

As described in Radwan et al., "[c]uttings were taken from shoots of young trees and epicormic sprouts of older individuals." (page 22, 2nd paragraph). In order to produce shoots and epicormic sprouts from *living* alder trees, Radwan et al. states:

"each tree was fertilized with 2 kg of a 10-20-20 commercial fertilizer. The mature trees were girdled around half the circumference at several points along the bole to encourage formation of epicormic sprouts, and the younger trees were heavily pruned to stimulate production of vigorous new shoots." (Radwan et al., page 23, first paragraph, emphasis added).

The new shoots and epicormic sprouts produced from the live trees were harvested, dipped in rooting solution and inserted into a rooting mixture of vermiculite and perlite and placed in a mist chamber provided with an intermittent overhead mist. (Radwan et al., page 24, first and second paragraphs).

It appears that the Examiner has improperly compared the step of rooting the cuttings from the sprouts in Radwan et al. to the method of the producing shoots from a log as recited in Claim 1. It is submitted that the teachings of Radwan et al. actually teach away from the present invention by describing a method of producing shoots from living trees, using a combination of a commercial fertilizer containing greater than 0.01% (w/v nitrogen) and pruning or girdling the trees. Moreover, even with respect to the step of rooting the cuttings, the Examiner acknowledges that "with the cuttings, Radwan et al. mists with *no fertilizer added*." (Advisory

Action, mailed April 13, 2006). In contrast, the present invention requires the step of applying a *fertilizer* solution that comprises less than about 0.01% (w/v) nitrogen in an amount sufficient to promote the growth of shoots from the log. Therefore, the teachings of Radwan et al. do not remotely teach nor suggest the claimed invention.

The teachings of Saul et al. do not cure the deficiencies of Radwan et al. The study described in Saul et al. was done to "provide information and experience on *rooting* Alder cuttings." (Saul et al. page 1, 2nd paragraph). Saul et al. discloses obtaining cuttings from lignified or green stems, dipping them into rooting powder and planting them vertically into a rooting media to obtain roots. Therefore, neither Saul et al. nor Radwan et al. suggest any method for promoting the growth of shoots from a log. In contrast, Radwan et al. teaches away from the method of the invention by requiring 1) living trees, 2) the application of a 10-20-20 commercial fertilizer to the tree, and 3) girdling or pruning the tree to produce shoots that can be rooted. Moreover, neither reference discloses nor suggests a method of promoting the growth of shoots from a log comprising the step of *applying a fertilizer solution* that comprises *less* than 0.01% (w/v) nitrogen, as required by Claim 1. Therefore, even if the references were to be combined, the combination would not include every element of the claimed invention.

Accordingly, for at least the reasons described above applicant respectfully requests withdrawal of this ground of rejection.

The Rejection of Claims 7-9 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Radwan et al. in View of Saul et al. in Further view of Huss-Danell et al. (*Physiol. Plant* 49(2): 113-116 (1980))

Claims 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Radwan et al. in view of Saul et al., in further view of Huss-Danell et al. (*Physiol. Plant* 49(2): 113-116 (1980)). Claims 7-9 depend from Claim 1. Therefore, it is submitted that Claims 7-9

are patentable over the cited references for at least the reasons set forth above in response to the Examiner's rejection of Claims 1-6 and 10-16 under 35 U.S.C. § 103(a). The deficiencies of Radwan et al. and Saul et al. are not cured by the teachings of Huss-Danell et al. that discloses conditions for promoting *rooting* of cuttings.

Consequently, it is submitted that the subject matter of Claims 7-9 is not obvious in view of the teachings of Radwan et al., Saul et al., and Huss-Danell et al. Accordingly, applicant respectfully requests withdrawal of this ground of rejection.

CONCLUSION

For the foregoing reasons, and as discussed more fully in the Response to Office Action mailed on June 17, 2005, the Response to Office Action mailed on November 18, 2005, and the Response to Final Office Action mailed on April 5, 2006, applicant respectfully submits that Claims 1-16 are in condition for allowance. Accordingly, applicant requests that the rejections of Claims 1-16 under 35 U.S.C. § 103(a) be withdrawn.

Respectfully submitted,

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